Supplement Version 7.3

1   OVERVIEW OF INNOVATIONS

The base of this supplement is the Martin Case manual version 7.20. In regard to version 7.20, some improvements have been added and some bugs are solved:

- Support for the 1024 channel DMX interface
- Output repatch function
- Library extension to upload Martin Fixtures with new software from the Martin Case light desk
- Extended functions for multi-select cues
- Extended solo function
- Fade-mode selection possible when creating playbacks in the fast programming mode
- Fan function with 5 modes
- Fixture grouping to use with the effects generator
- Optimized Auto-prepare function
- Optimized Preset detection on the read-output function

2   UPDATING THE SOFTWARE TO VERSION 7.30

- Download version 7.30 from the Martin site: http://www.martin.dk/service/ . 2 files have to be downloaded: casedisk1.zip and casedisk2.zip.
- **Unzip casedisk1.zip to a floppy and label it 'install disk 1'**
- **Unzip casedisk2.zip to a floppy and label it 'install disk 2'**
- Both floppies hold now the installation files.
- Switch on the Martin Case controller and press (for 2 seconds) *[SHIFT] + [SETUP].* When the controller is started up, insert 'install disk 1' into the floppy drive and select from the menu: **Update – Program Update**.
- The installation will be started from the floppy disk. Follow the instructions on the screen. After the update, the controller will restart and version 7.30 should be installed.

3   SUPPORT FOR THE 1024 CHANNEL INTERFACE

From version 7.30, the 1024 channel DMX interface is supported. The development of this interface was necessary to make place for faster processors with higher cooling fans. Attention, the Martin Case controller can control maximum 2048 channels, no matter how many interfaces or how many channels are installed in the controller. The last paragraph gives an overview of the main boards and the possible processors.

When an interface is replaced by its 1024 channel version, version 7.30 must be installed and a reconfiguration has to be executed: *(see Martin Case manual: Chapter 2.2 Lichtconsole – Config – Automatic configuration)* .

Note: The configuration will be done automatically when installing version 7.30. This assumes that no changes have to be done hardware wise.

4   MARTIN FIXTURE UPLOAD

There is a possibility to install a supplemental library on the desk to make fixture software uploads possible. To install this new library, a new menu item called '*(menu – upload – Fixture Uploader XU3)*' is added (to enter the menu; Press *[SHIFT] + [SETUP])*. For this item, the 'upload files XU3' should be downloaded from the Martin site: http://www.martin.dk/support/. **Copy** (do not unzip) the file XU3.ZIP to a floppy and insert this in the light desk. Select the menu item 'Fixture Uploader XU3'.

Note: This will only install the upload libraries on the desk; it will not start a fixture upload.

To be able to use the upload functionality of the controller, the DMX interface from which the upload will be started needs EPROMS with a version number higher than 4.21 (example 4.22 or 4.23). The version number is written on the EPROM label (sn: xxxxxxxx422) or can be seen when reconfiguring the controller (*menu – lichtconsole – config – automatic configuration)*. The start screen of the light program will also show the EPROM versions (first line).

4.1 MARTIN FIXTURE UPLOAD

When the Martin Fixture upload library is installed (previous chapter), it will be visible in the SETUP.

[SETUP (2 seconds)] [1]

The 'Martin Upload' library is selectable from the Fixture Brand selection menu:

- *Select Martin Upload*
- *Select from 'available types' a fixture type: for example MA250014.* MA250014 stands for MAC250 software version 1.4.

When the fixture type is selected, an info window will open on the right bottom of the screen. This window shows some information about the software changes in the selected version:
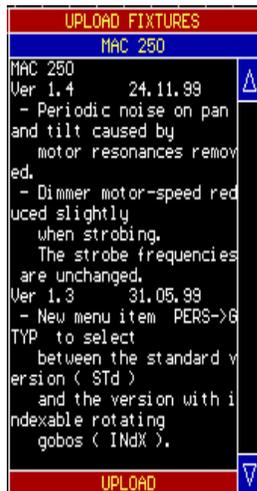
- To start the upload program: *Click the 'UPLOAD' item at the bottom of the window.*
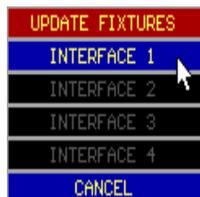
- *Select the DMX output or DMX interface on which the upload has to be done.* Only DMX interfaces that are able to do the upload (with EPROM version higher than 4.21) will be selectable.
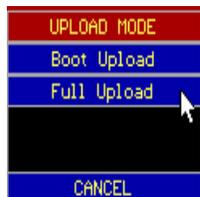
- *Select 'Full Upload' to start the upload.*

- **Note 1 :** Only the fixture types that correspond with the selected library will react on the upload command, and only on the selected DMX output. For example, when MAC600s and MAC250s are rigged on the same DMX line, only the MAC250s will react on the upload when the 250 library MA250XXX is selected.

Note 2 : 'Boot Upload' mode is a special mode. Boot upload mode is used when the fixture software is completely erased from the fixture or when there were problems during the fixture upload. Depending on the fixture type, a checksum error will be displayed in the fixture display when powering up the fixture (see the Martin fixture manual).

Steps for 'Boot upload':
- *Switch off the Martin fixture.*
- *Select the library (see normal upload)*
- *Select 'Upload' (see normal upload)*
- *Select the interface (see normal upload)*
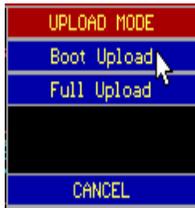
- *Select 'Boot Upload'*

- *Select 'Start Upload'* (Martin fixture still powered off).

- Power ON the Martin Fixture and wait until the fixture displays 'boot mode' (on most fixtures 'b' or 'boot'). *Select continue.*

5 OUTPUT REPATCH FUNCTION

Complete fixture outputs can be repatched instead of repatching all fixtures from one output to another in the setup. This function can be useful when there is a problem with one of the DMX outputs of the controller.

This function is selected from the configuration program:

- *Press [SHIFT] + [SETUP]* (2 seconds)
- *Select 'CONFIG'*
- *Select 'CONFIGURATION CASECARD(S)' (password TELESOFT)*
- *Select 'PATCHING LINE / CARDS'*

A screen with the present DMX output configuration will be shown. A the bottom of the screen, a list appears with all possible selections. Select the output with the arrow keys. An output can be repatched by pressing the SPACE bar on the highlighted output.

Note 1:   CARD x 1 – 512 means: channels 1 to 512 on DMX interface x
CARD x 513 – 1024 means : channels 1 to 512 of the second DMX output of interface x. This function is only available on the 1024 channel interface.

A controller equipped with 2048 channels where 2 1024 interfaces are used will show:
- Interface 1 = 512 channels (the first interface, controlling also all electronics will never be 1024 channels). DMX output 1
- Interface 2 = 1024 channels. DMX outputs 2 and 3
- Interface 3 = 1024 channels (only 512 are used). DMX output 4

Note 2: In this example, channels 513-1024 of interface 3 can be used for the repatch, but the output is not connected. So repatch also the DMX connection inside the controller.

Note 3: Every output must have a unique patch. So when you repatch one output to another, the other output must be repatched too.

6 MULTI-SELECT CUES

Multi-select cues are used to start multiple cues at the same time (see version 7.20). Some new timing functions are added when selecting multi-cues.

6.1 FADE-IN TIMING OVERRIDE

Suppose, some cue-memories are programmed with a fade-in time. During the show, you want to start those cue-memories at the same time, but without the fade-in:

We take the show 'MANUAL72' as an example:
   Cue-pages 2 to 5 hold different effects for different fixtures types.
   If we start cues 21 of every page, the fixtures will open to white, but with a fade-in of 2 seconds.
   Suppose we want those fixtures in white, but instantly (without the fade-in).

[CUE] [CUE (double click)*] [Select cue page] [select cue(s)] [@] [enter time or @] [RET]*

- *Double click [CUE]* to enter multiselect mode.
- *Select the cues (here all cues 21 on pages 2 to 5).*
- *Press [@] to enter the time. In this example, we press the [@] key 4 x, this results in a time of 0 seconds.* All fixtures will go instantly to white open.

Note 1: Only the fade-in time will be overridden. Delay in/out and fade-out will be executed according to the programmed timers in the different cue memories.

Note 2: This will **not reprogram** the fade-in timers of the selected cue memories. It is not saved to the cue memories.

6.2 CHANGING THE TIMERS OF SEVERAL CUES SIMULTANEOUS

Contrary to the previous paragraph, we can also reprogram the timers of several cues at the same time, and not only the fade-in time, but all timers. This function can only be used with a playback wing or a PRO + controller.

[CUE] [CUE (double click)*] [Select cue page] [select cue(s)] [[DELAY IN] or [FADE-IN] or [DELAY-OUT] or [FADE-OUT] or [LINK]] [enter time or @] [RET] [RET]*

Suppose we take the previous example, but we want to reprogram the delay-in to 5 seconds and the fade-in to 3 seconds of all cues 21 on pages 2 to 5.
- *Double click [CUE] to enter multi-select mode.*
- *Select the cues 21 on pages 2 to 5.*
- *Press [DELAY IN], enter the time (5 sec) and press [RET]*
- *Press [FADE IN], enter the time (3 sec) and press [RET]*
- *Select [RET] again to save and execute.*

Note : This method can also be used to reprogram the timers of several cues that are not supposed to be used in the multi-select cue mode (for example cue page 1 of the show MANUAL72). Of course this shouldn't be done during performance.

6.3 CUELINKING WITH MULTISELECT CUES

Like in the previous paragraph, we can also change the link of several cues simultaneous. What are the possibilities?
- Deleting the cue-linking of several cues simultaneous
- Reprogram the cue-linking of several cues simultaneous
- Creating a loop out of the selected order of cues
- Changing the link mode of several cues simultaneous

[CUE] [CUE (double click)*] [Select cue page] [select cue(s) in the desired order] [LINK] [Enter time or [ESC] to clear]* Loop Linking? *[[RET] or [ESC]]* Only Def Channel? *[[RET] or [ESC]] [RET]*

Suppose we want to link cues 11 to 17 on cue page 1 in a loop, in the example 'MANUAL72':
- *Double click [CUE]*
- *Select cues 11 to 17 (page 1) in the right order*
- *Press [LINK]*
- *Enter the link time, for example 5 seconds*
- On the question: 'Loop linking? YES=RET NO=ESC' , we select *[RET]*
- On the question: 'Only Def Channels? YES=RET NO=ESC', we select *[ESC]* to make a global cue linking.
- Press *[RET]* to save and execute.

The cues will now be linked in the order that we have selected them. They will all have a hold (link) time of 5 seconds.

Note : The question 'Only Def Channels' means:
- Only defined channel link when the [RET] key is selected
- Global cue linking when the [ESC] key is selected.

If we want to delete this cue linking:
- *Double click [CUE]*
- *Select cues 11 to 17*
- *Press [LINK] and press [ESC]*
- On the question: 'Clear Linking? YES=RET NO=ESC', we select *[RET]*
- *Press [RET]* to save and execute.

7   EXPANDED SOLO FUNCTION

Starting from this version, a memory can be assigned to the SOLO function. **All NOT selected fixtures will execute the solo memory, except Pan/Tilt, and all selected fixtures will follow their present state** (as if the solo was not selected).

[SHIFT] + [SOLO] [EDIT] [enter memory number or [ESC]] [RET]

- To assign a memory to the solo function, open the solo function with *[SHIFT] + [SOLO]*

- The solo window will open. *Press [EDIT]* to add a memory or *press [ESC] or memory number 0* to put it back in default (like in previous software versions).
- *Press [RET]* to save.

Take the example of MANUAL72. On the stage, we have 4 fixture types: MAC600 (green), PRO918 (red), MAC300 (pink) and MAC250 (blue). We can make a memory that puts those fixtures types in a color like they are represented on the stage layout (green, red, pink and blue). We put their dimmers on half and save it to memory 666.

- When the memory is stored and assigned to the solo function, we activate the solo function: *Select all fixtures and put them in their defaults. Open their dimmers full.* Everything will be in white open.
- *Select [SOLO].* Remember: the solo function will only be activated when the **cue fading *[CUE] + [ON]* is not active.**
- *Select only 1 fixture.*
- All not selected fixtures will go to memory 666 (except for their Pan/Tilts), and the selected fixture will be white open (the present state).

8 FADE MODE ON PLAYBACKS (FAST PROGRAMMING)

When the fast programming mode for playbacks is used, it is now possible to assign also a fade mode.

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*[make a light scene] [TO] + [playback flashkey 1...42] [enter name] [RET] [*enter mode *[1...6 (*keypad) *or [+] or [-]] [RET]*

- When we want to save a light scene in a playback, we select *[TO]* and *select* the *[playback flashkey].*
- Depending on the configuration setting 'automatic memory name' ([SETUP] [2]), a memory name will be asked.
- The selected fade mode will appear on the left bottom of the screen. With the keypad keys *[1...6]* a fade mode can instantly be selected or you can run through the different modes with the *[+] or [-]* keys. Press *[RET]* to save.

As a reminder; the different fade modes:

- Mode 1: Only fade-permission: This is the default mode. Channels that are given fade-possibilities, will fade, the others will bump.
- Mode 2: Fade all channels: All channels will have fade possibilities. The library is ignored.
- Mode 3: No fading: All channels will be in bump mode.
- Mode 4: Same as mode 3, but when used in sequences, the fade time of the sequence will be ignored (sequence fade time will be taken 0)
- Mode 5: LTP-dimmers fade. Normally a dimmer is in HTP (highest takes precedence) mode (see paragraph 3). In mode 5, the dimmer-channels will act as any other channel.
- Mode 6: LTP-dimmers fade but bump mode for all other channels. This is a combination of mode 5 and mode 3. In this mode, all non-dimmer channels will bump to their positions as soon as the fading begins, the dimmer will keep fading. When a threshold is applied on the memory, then the threshold will react inverted for non-dimmer channels. The dimmer channels will start its fading as indicated in the threshold, but the non-dimmer channels will fade until the threshold % is reached. This mode will only work if the dimmer-channels of the indicated fixtures are closed in other playbacks, active sequences or the cue-memory, or the mode will be switched to mode 1 + mode 5.

9   FAN FUNCTION

FAN means: automatic spread.
All channels, including timing and effect generator channels can be spread automatically over the selected fixtures.

Since the FAN function is related to the absolute and relative function, it is connected to the ABS button.

[Select fixtures] [Select a channel] [press [ABS] until LED blinks] [adjust with the trackerball]

Suppose we want to spread the tilts of the PRO918s:
-    *Select the PRO918s, put them in their defaults with dimmer open.*
-    *Select control channel [13/29] (tilt)*
-    *Select [ABS] (until LED blinks)*
-    *Adjust with the trackerball*

Note : It is possible to select other control channels without leaving the FAN mode.

There are 5 different FAN modes:
-    linear starting from the first selected fixture **(Standard)**
-    linear starting from the last selected fixture **(Inverse)**
-    linear from the center selected fixture **(Standard mid)**
-    Sine spread **(Sine)**
-    Inverse sine spread **(Inverse sine)**

[SHIFT] + [ABS] [Select mode with [2↓] or [8↑]] [RET]

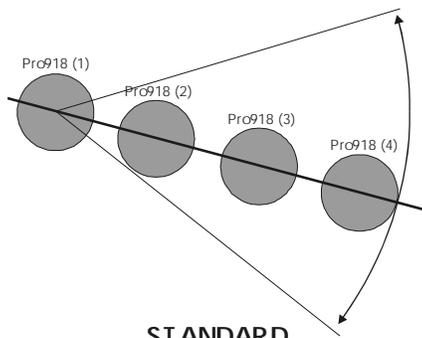When the combination [SHIFT] + [ABS] is selected, next window will appear:

SELECT FANMODE		
STANDARD	◿	ON
INVERSE	◿	
STANDARD MID	╱	
SINE	◠	
INVERSE SINE	⊓	

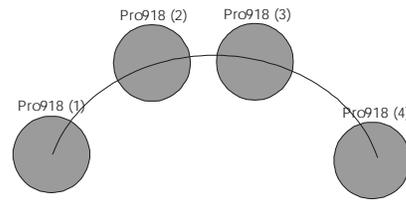A mode is selected with the arrow keys *[2↓] or [8↑] followed by a [RET].*

Quick selection mode:
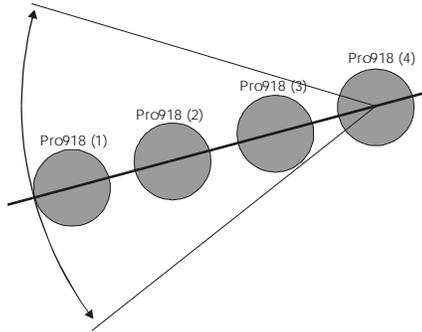

[ABS] + [1...8 (keypad)*]*
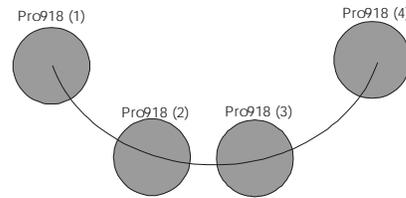
The figure on next page explains the different modes:

STANDARD
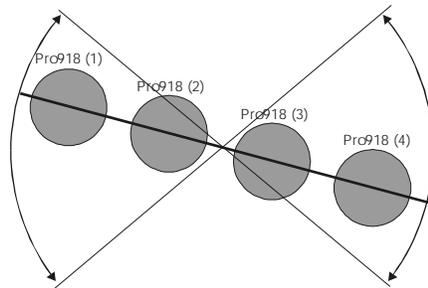**(linear starting from fixture 1)**
Fixture 1 = center position

SINE
(starting from outer fixtures)
Outer fixtures = center position

INVERSE
(linear starting from last fixture)
Last fixture = center position

INVERSE SINE
(starting from inner fixtures)
Inner fixture = center position

STANDARD MID
(linear from center fixture)
Inner fixture = center position

CENTER POSITION means; The fixture that makes minimal changes, or the fixture round that the FAN function runs.

Note 1: In this example, we've used the tilt function, but the FAN works also on the dimmer, color, timing channels, effect generator channels... Try it out.

Note 2: The other ABS functions are:
- Relative : ABS LED off
- Absolute : ABS LED on
- FAN : ABS LED blinks

10 GROUPING FIXTURES (EFFECT GENERATOR)

Until now, the 'wave' and 'step' effects depended on the fixture order patched in the setup. When planning the setup, we had to keep in mind that the effects generator could be used sometimes.

With this new 'grouping fixtures' function, fixtures can be grouped in a new order independent of the fixture patch in the setup.

There is the possibility to **create 20 different groups.** Each group can hold **35 sub-groups.** Sub-groups hold fixtures that can be seen as 1 entity.

An example for clarity:
A 'wave' or 'step' effect can be run 'per x' fixtures. Now we have the possibility to run the effect 'per x' sub-groups, where each sub-group contains a number of fixtures.

Suppose: we have a rig with a mix of MAC500s and MAC600s, and in the setup, they have been patched according to fixture type (see figure below):
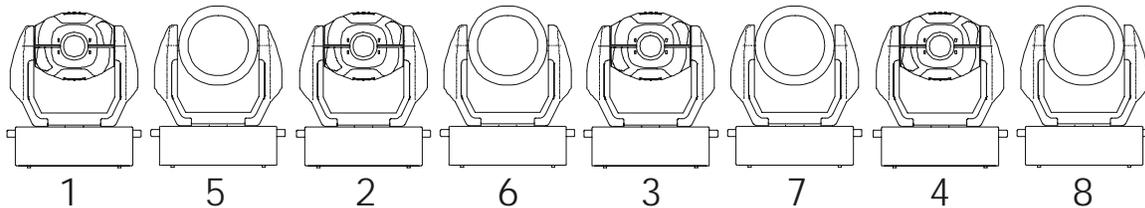
1   5   2   6   3   7   4   8

When an effect is created over all the fixtures, the order of the effect will be:1 – 2 – 3 – 4 – 5 – 6 – 7 – 8. When we make a group with 8 sub-groups in the order: 1 – 5 – 2 – 6 – 3 – 7 – 4 – 8 (each fixture 1 sub-group), then the effect will run nicely from the left to the right (in the order of the sub-groups).

We can also make a group x with 4 sub-groups:
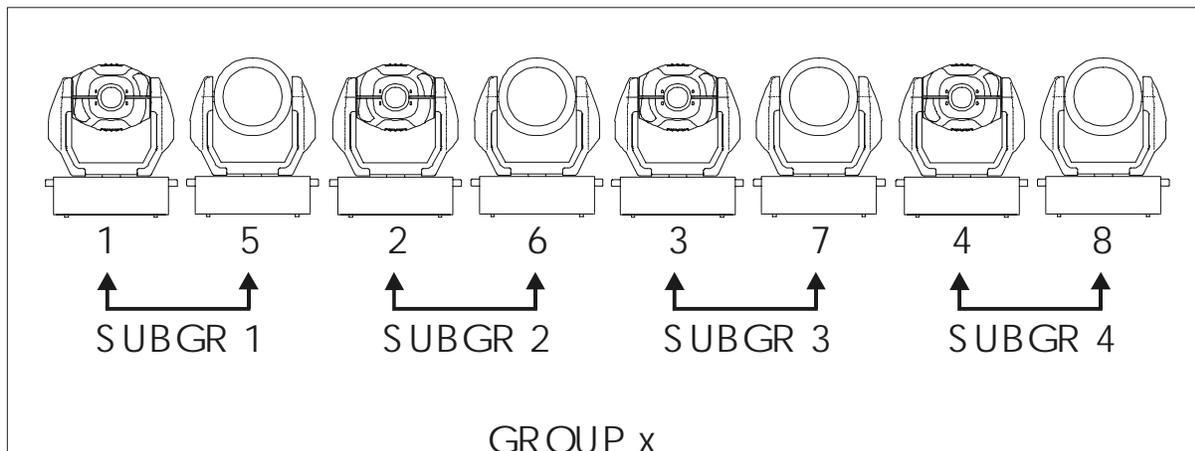
When we select this group x, and we run the effect as step or wave per 4, then the fixtures will follow the effect 2 by 2: 1,5 – 2,6 – 3,7 – 4,8.

We can see sub-groups as groups of 1 fixture.

CREATING GROUPS

To create groups, a channel (channel 16) has been added to the effect generator. This channel has to be used through the [DIRECT ACCESS] key. There is a possibility to create 20 groups, each holding a maximum of 35 sub-groups. Once a group has been created, it will be accessible throughout the entire effect generator.

[Select a fixture control channel] [EFF] [DIRECT ACCES (double click)*] [16/32]*

Next window will appear:

There are 2 possibilities to create groups: with the keys or with the trackerball:

With the keys:

[Select a group [1...20 (in 1...70)*]] [EDIT] [Select fixture(s)* (in 1...70)*] [[NEXT* (if more sub-groups are needed)*] [Select fixture(s)* (in 1...70)*] [NEXT* (if more sub-groups are needed)*]...] [TXT EDIT] [enter name] [RET]*

Every time the [NEXT] key is selected, a new sub-group is created.

With the trackerball:

[CLICK a group (1...20)] [CLICK EDIT] [[Select fixture(s) (in 1...70)*] [NEXT* (if more sub-groups are needed)*] [Select fixture(s)* (in 1...70)*] [NEXT* (if more sub-groups are needed)*] ...] [TXT EDIT] [enter name] [RET]*

Each sub-group within 1 group has to hold a different selection of fixtures. Overlapping fixtures in sub-groups will be deleted from the previous sub-group; or sub1: (fixt1 and fixt2) sub2: (fixt2 and fixt3) will not work, fixt2 will be deleted from sub1.

DELETING GROUPS

To delete a group:

[Select the group [1...20] (in 1...70)*] [CLR] [RET* (to confirm)*]*
    or
[CLICK a group (1...20)] [CLICK CLEAR] [RET (to confirm)*]*

SELECTING GROUPS

When a group has been created, the group can be selected to be used with the effect generator:

[Select the group [1...20] (in 1...70)*]*
    Or
[CLICK the group (1...20)]

If a selected group **has to be deselected and one wishes to work without a group, select** *'GROUPING NONE'*

FIXTURE SELECTIONS

If no groups are selected and one wishes to work like in the old way, just with selecting fixtures, but without leaving the group mode, select *'SELECT FIXTURES'* to select the fixtures.

STEP/x WAVE/x

The value of x will change according to the number of sub-groups, if a group is selected. These are shortcuts to create a wave or step per x without leaving the group mode.

11 OPTIMIZED FUNCTIONS

AUTOPREPARE

Regarding to version 7.2, the auto-prepare function has been optimized. All non-dimmer channels will perform a X-fade of 2 seconds (in stead of 0 seconds in version 7.2) to the values of the cue where the dimmer opens again. So they don't jump anymore to the new values but there will be a smooth 2 seconds fade.

READ OUTPUT and PRESETS

When a READ OUTPUT was activated, it was possible that the memory table gave different presets for Pan, Pan fine, Tilt, Tilt fine and also different presets for other combined channels like RGB. This was not logical. From now of, **all values** of the **combined channels** must correspond to a stored preset before a preset value will be inserted in the memory table.

So a different preset for Pan and Tilt in the same read output will never show up again. The values for Pan and Tilt together must be stored somewhere in a preset before they show up as a preset.
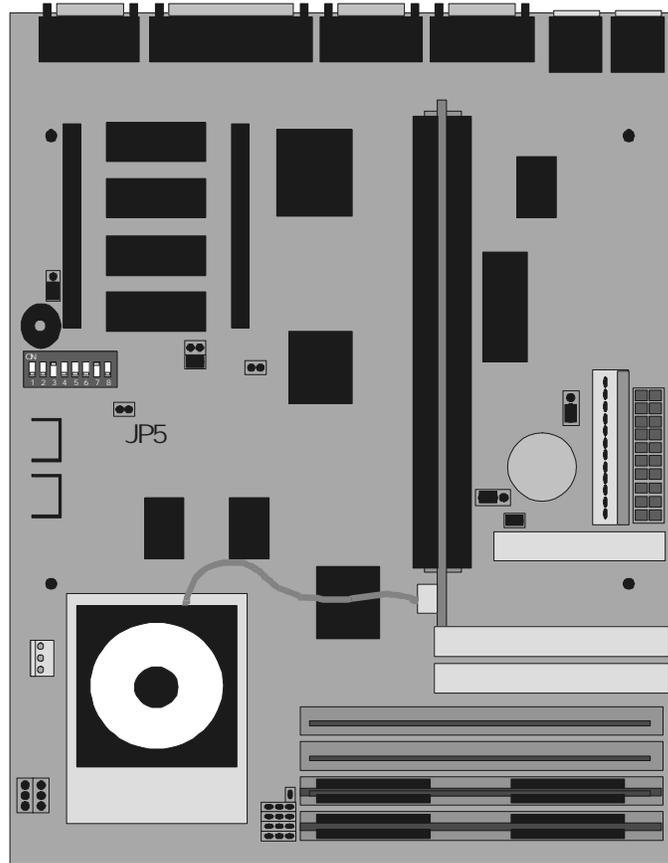
With combined channels, we mean channels that are related to each other like Pan, Pan fine, Tilt, Tilt fine and also the R, G en B channel in RGB fixtures.

12 OVERVIEW OF MAINBOARDS AND PROCESSORS

PAM-0065
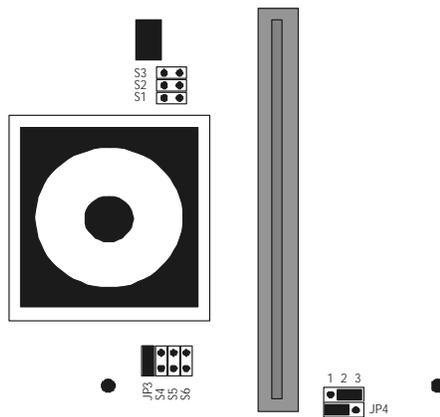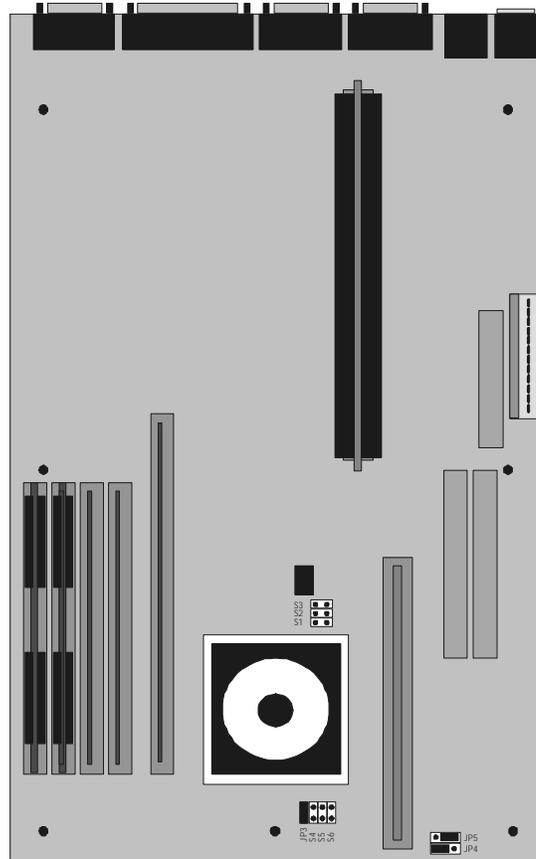
| Processor	JP4	JP5	S4	S5	S6
Pentium 133MHz	1-2	2-3	Close	Close	Close
Pentium 200MHz	2-3	1-2	Close	Close	Close
Pentium 200MHz with MMX	2-3	1-2	Open	Open	Open

PAM-0066

CPU Voltage auto detection: Set SW1 and SW2 to off and JP5 open, and set CMOS 'CPU core voltage' as AUTO.

Processor	SW3	SW4	SW5	SW6	SW7	SW8
Intel Pentium 133	ON	OFF	OFF	OFF	ON	OFF
Intel Pentium 200	OFF	ON	OFF	OFF	ON	OFF
Intel Pentium 200 MMX	OFF	ON	OFF	OFF	ON	OFF
Intel Pentium 233 MMX	OFF	OFF	OFF	OFF	ON	OFF
AMD K6/200	OFF	ON	OFF	OFF	ON	OFF
AMD K6/233	OFF	OFF	OFF	OFF	ON	OFF
AMD K6/266	ON	OFF	ON	OFF	ON	OFF
AMD K6/300	ON	ON	ON	OFF	ON	OFF
AMD K6/333	OFF	ON	ON	OFF	ON	OFF
AMD K6/366	OFF	OFF	ON	OFF	ON	OFF

PAM-0067

Connector for processor fan
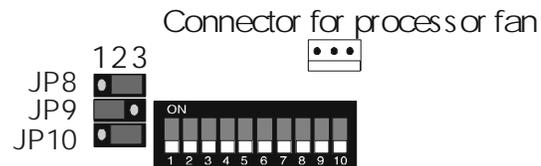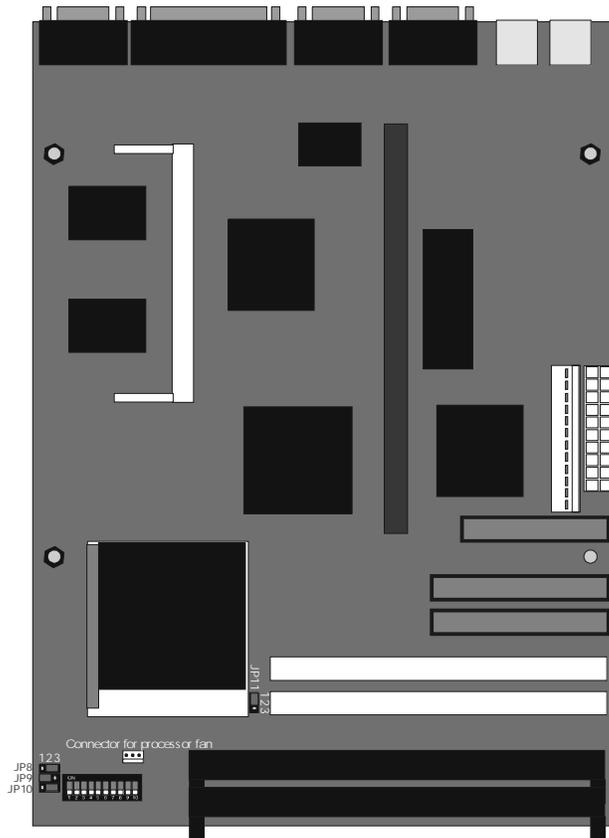
CPU Core Voltage

AMD processors up to 550 MHz can be used on the main board. **Use also an appropriate fan to cool the processor. The main board has a connector for the fan.**

Most AMD processor use split power. Internally they work at a CORE voltage, but to external components they use 3.3V. **Adjust dipswitch 1 to 4 to the processors CORE voltage** (for AMD this can be 2.2V or 2.4V and it is marked on the CPU)

Voltage	SW1	SW2	SW3	SW4
2.2V	OFF	ON	OFF	OFF
2.4V	OFF	OFF	ON	OFF

Set dipswitch SW1-5 to SW1-10 and jumper JP9 and JP10 according to the CPU frequency. The list below shows the settings for AMD processors.

CPU frequency settings

CPU type	SW5	SW6	SW7	SW8	SW9	SW10	JP9	JP10
AMD K6/200	OFF	ON	OFF	OFF	ON	ON	2-3	1-2
AMD K6/233	OFF	OFF	OFF	OFF	ON	ON	2-3	1-2
AMD K6/266	ON	OFF	ON	OFF	ON	ON	2-3	1-2
AMD K6/300	ON	ON	ON	OFF	ON	ON	2-3	1-2
AMD K6-2/250	ON	ON	OFF	OFF	OFF	OFF	1-2	2-3
AMD K6-2/266	ON	OFF	ON	OFF	ON	ON	2-3	1-2
AMD K6-2/300	OFF	ON	OFF	OFF	OFF	OFF	1-2	2-3
AMD K6-2/333	OFF	OFF	OFF	ON	OFF	OFF	1-2	2-3
AMD K6-2/350	OFF	OFF	OFF	OFF	OFF	OFF	1-2	2-3
AMD K6-2/400	ON	OFF	ON	OFF	OFF	OFF	1-2	2-3
AMD K6-2/450	ON	ON	ON	OFF	OFF	OFF	1-2	2-3
AMD K6-2/475	OFF	ON	ON	ON	OFF	OFF	1-2	2-3
AMD K6-2/500	OFF	ON	ON	OFF	OFF	OFF	1-2	2-3
AMD K6-2/550	OFF	OFF	ON	OFF	OFF	OFF	1-2	2-3
AMD K6-III/400	ON	OFF	ON	OFF	OFF	OFF	1-2	2-3
AMD K6-III/450	ON	ON	ON	OFF	OFF	OFF	1-2	2-3

Note: DO NOT use AMD K6-2+ (plus!!!) **or AMD K6-III+** (plus!!!) versions on the board. The PLUS version is for notebooks and will not work on the board.